

IN THE CLAIMS

Please cancel Claims 3 and 20 without prejudice and without disclaimer of subject matter.

Please amend Claims 1, 18, 38 and 43 to read as follows (a version marked to show the changes is submitted herewith):

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1. (Thrice Amended) A matrix substrate having plural switching elements provided in matrix corresponding to intersecting points of scanning lines and signal lines, plural picture element electrodes connected to the switching elements, and horizontal circuits and vertical circuits for inputting the signals to the switching elements, the matrix substrate comprising:

a horizontal scanning circuit for sampling a picture data based on digital picture signals;

a latch circuit for memorizing the data synchronously with output from the horizontal scanning circuit;

a D/A converter for converting an output from the latch circuit into analog signals;

plural signal transfer switches provided between the D/A converter and the signal lines;

a selection circuit for selecting at least one of the signal transfer switches;

circuitry which inputs signal-polarity inverting signals together with the picture data, and which inverts the polarity of the analog signal from the D/A converter; and

a buffer disposed between said D/A converter and said selection circuit, which stores the analog signal of inverted polarity from the D/A converter,

wherein a number M of said D/A converters is less than a number N of said switching elements arranged in a horizontal direction, and analog signals are sequentially inputted from particular ones of said M D/A converters to N/M plural switching elements arranged in a horizontal direction.

18. (Twice Amended) A liquid crystal device comprising a matrix substrate having plural switching elements provided in matrix corresponding to intersecting points of scanning lines and signal lines, plural picture element electrodes connected to the switching elements, and horizontal circuits and vertical circuits for inputting the

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signals to the switching elements; a counter substrate opposing to the matrix substrate; and a liquid crystal material placed between the matrix substrate and the counter substrate, the matrix substrate comprising:

a horizontal scanning circuit for sampling a picture data based on digital picture signals;

a latch circuit for memorizing the data synchronously with output from the horizontal scanning circuit;

a D/A converter for converting the output from the latch circuit into analog signals;

plural signal transfer switches connected to output of the D/A converter;

a selection circuit for selecting at least one of the signal transfer switches; and

means for inputting signal-polarity inverting signals together with the picture data, and for inverting the polarity of the analog output of the D/A converter,

wherein a number M of said D/A converters is less than a number N of said switching elements arranged in a horizontal direction, and analog signals are sequentially inputted from particular ones of said M D/A converters to N/M plural switching elements arranged in a horizontal direction.

38. (Amended) A matrix substrate having plural switching elements provided in matrix corresponding to intersecting points of scanning lines and signal lines, plural picture element electrodes connected to the switching elements, a horizontal circuit for inputting the signals to the switching elements, and a vertical circuit for driving said scanning lines, the matrix substrate comprising:

a horizontal scanning circuit for sampling a picture data based on digital picture signals;

a latch circuit for memorizing the data synchronously with output from the horizontal scanning circuit;

a D/A converter for converting the output from the latch circuit into analog signals; and

polarity inversion means for inputting, together with the picture data, a signal polarity inversion signal and for inverting a polarity of the analog output of said D/A converter according to the signal polarity inversion signal,

wherein a number M of said D/A converters is less than a number N of said switching elements arranged in a horizontal direction, and analog signals are sequentially

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inputted from particular ones of said M D/A converters to N/M
plural switching elements arranged in a horizontal direction.

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43. (Amended) A liquid crystal apparatus,
comprising:
a matrix substrate having plural switching
elements provided in matrix corresponding to intersecting
points of scanning lines and signal lines, plural picture
element electrodes connected to the switching elements, a
horizontal circuit for inputting the signals to the switching
elements, and a vertical circuit for driving the signal
lines;

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an opposite substrate opposing said matrix
substrate; and

a liquid crystal material between said matrix
substrate and said opposite substrate,

said apparatus further comprising a horizontal
scanning circuit for sampling a picture data based on digital
picture signals, a latch circuit for memorizing the data
synchronously with output from the horizontal scanning
circuit, a D/A converter for converting the output from the
latch circuit into analog signals, and means for inputting a
signal polarity inversion signal together with the picture